

Available in two sizes ARCOL's CRS utilises Electron Beam Welding technology to connect its Manganin or NiCr element to heavy copper connectors. Suitable for typical applications such as Solar Inverters, Frequency converters & current sensors for hybrid power sources.

- Excellent long-term stability and low inductance
- Suitable for mounting using re-flow soldering or welding on copper
- Power rating upto 7 Watts



## Characteristics

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| Tolerance (Code):             | $\pm 1\%$ (F), $\pm 5\%$ (J)                            |
| Operating temperature:        | -55°C to +170°C                                         |
| Overload:                     | 5 times rated power for 5 seconds                       |
| Thermal shock:                | $\pm 0.1\%$ . -65°C, 25°C, 125°C, 25°C, 25 cycles       |
| Load life:                    | $\pm 1\%$ . 90min. "ON", 30min "OFF" for 2000 hours     |
| Moisture resistance:          | $\pm 0.2\%$ . 90~98%RH, +25°C, +65°C, -10°C, 10 cycles. |
| Resistance to Soldering Heat: | $\pm 0.2\%$ . 350°C for 30 seconds or 250°C for 10min.  |
| High Temperature Exposure:    | $\pm 0.2\%$ . 140°C for 250 hours                       |
| Vibration, High frequency:    | $\pm 0.2\%$ . 15g 10~2000Hz, 36 cycles                  |
| Inductance                    | <3nH                                                    |

## Dimensions (mm)

| Size    | Value          | Material   | Thickness (t)    |
|---------|----------------|------------|------------------|
| CRS1050 | 0.5m $\Omega$  | Manganin   | 0.88mm $\pm 0.1$ |
| CRS1050 | 1m $\Omega$    | Manganin   | 0.43mm $\pm 0.1$ |
| CRS1050 | 2m $\Omega$    | NiCr alloy | 0.64mm $\pm 0.1$ |
| CRS1050 | 3m $\Omega$    | NiCr alloy | 0.43mm $\pm 0.1$ |
| CRS1050 | 4m $\Omega$    | NiCr alloy | 0.32mm $\pm 0.1$ |
| CRS1575 | 0.2m $\Omega$  | Manganin   | 1.50mm $\pm 0.1$ |
| CRS1575 | 0.5.m $\Omega$ | Manganin   | 0.56mm $\pm 0.1$ |
| CRS1575 | 1m $\Omega$    | NiCr alloy | 0.90mm $\pm 0.1$ |
| CRS1575 | 2m $\Omega$    | NiCr alloy | 0.45mm $\pm 0.1$ |
| CRS1575 | 3m $\Omega$    | NiCr alloy | 0.30mm $\pm 0.1$ |



ARCOL UK Limited,  
Threemilestone Ind. Estate,  
Truro, Cornwall, TR4 9LG, UK.  
T +44 (0) 1872 277431  
F +44 (0) 1872 222002  
E sales@arcolresistors.com

[www.arcolresistors.com](http://www.arcolresistors.com)

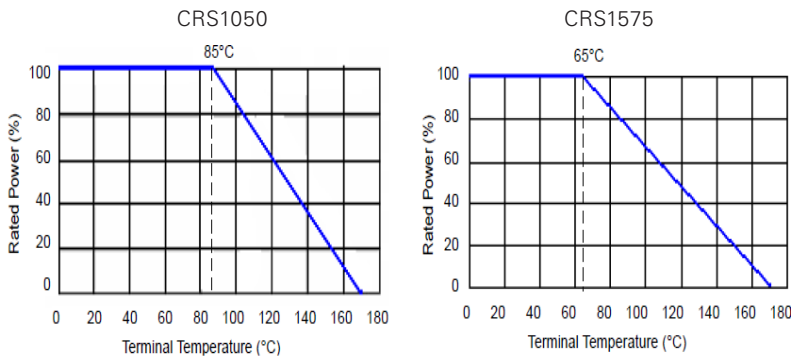
The information contained herein does not form part of a contract and is subject to change without notice. ARCOL operate a policy of continual product development, therefore, specifications may change.

It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask ARCOL.

Electrical Specifications

| Type    | Wattage<br>(Rated Power) | Resistance Range |        | TCR<br>(PPM/°C)<br>(+20°C~+150°C) |
|---------|--------------------------|------------------|--------|-----------------------------------|
|         |                          | F(±1%)           | J(±5%) |                                   |
| CRS1050 | 5                        | R0005 (0.5mΩ)    |        | ±75                               |
| CRS1050 | 4                        | R001 (1mΩ)       |        | ±60                               |
| CRS1050 | 4                        | R002 (2mΩ)       |        | ±100                              |
| CRS1050 | 3                        | R003 (3mΩ)       |        | ±100                              |
| CRS1050 | 2.5                      | R004 (4mΩ)       |        | ±100                              |
| CRS1575 | 7                        | R0002 (0.2mΩ)    |        | ±50                               |
| CRS1575 | 6                        | R0005 (0.5mΩ)    |        | ±100                              |
| CRS1575 | 6                        | R001 (1mΩ)       |        | ±120                              |
| CRS1575 | 4                        | R002 (2mΩ)       |        | ±120                              |
| CRS1575 | 3.5                      | R003 (3mΩ)       |        | ±120                              |

Derating Curve

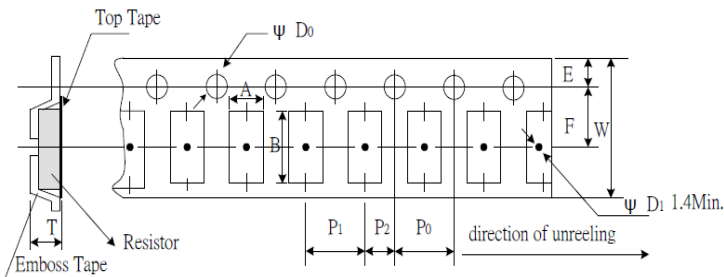


Ordering Procedure

Standard Resistor: Series, Resistance Value, Tolerance,TCR,Packaging (TR: Tape & Reel, B: Bulk)  
e.g: CRS1050 R001 J 60ppm TR

Packaging

Emboss Plastic Tape Specifications



| Type    | A   | B    | W  | E    | F    | P0 | P1 | P2 | ØD0  | T   | Quantity (EA) |
|---------|-----|------|----|------|------|----|----|----|------|-----|---------------|
| CRS1050 | 5.7 | 11.2 | 16 | 1.75 | 7.5  | 4  | 12 | 6  | 1.50 | 1.2 | 3000          |
| CRS1575 | 8.2 | 16.1 | 24 | 1.75 | 11.5 | 4  | 12 | 6  | 1.50 | 1.9 | 2000          |

ARCOL UK Limited,  
Threemilestone Ind. Estate,  
Truro, Cornwall, TR4 9LG, UK.  
T +44 (0) 1872 277431  
F +44 (0) 1872 222002  
E sales@arcolresistors.com

www.arcolresistors.com

The information contained herein does not form part of a contract and is subject to change without notice. ARCOL operate a policy of continual product development, therefore, specifications may change.

It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask ARCOL.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Ohmite:

[CRS1050 R0005 F 75PPM TR](#) [CRS1050 R0005 J 75PPM TR](#) [CRS1050 R001 F 60PPM TR](#) [CRS1050 R001 J](#)  
[60PPM TR](#) [CRS1050 R002 F 100PPM TR](#) [CRS1050 R002 J 100PPM TR](#) [CRS1050 R003 F 100PPM TR](#) [CRS1050](#)  
[R003 J 100PPM TR](#) [CRS1050 R004 F 100PPM TR](#) [CRS1050 R004 J 100PPM TR](#) [CRS1575 R0002 F 50PPM TR](#)  
[CRS1575 R0002 J 50PPM TR](#) [CRS1575 R0005 F 100PPM TR](#) [CRS1575 R0005 J 100PPM TR](#) [CRS1575 R001 F](#)  
[120PPM TR](#) [CRS1575 R001 J 120PPM TR](#) [CRS1575 R002 F 120PPM TR](#) [CRS1575 R002 J 120PPM TR](#) [CRS1575](#)  
[R003 F 120PPM TR](#) [CRS1575 R003 J 120PPM TR](#) [CRS1050 R0005 F 75PPM B](#) [CRS1050 R0005 J 75PPM B](#)  
[CRS1050 R001 F 60PPM B](#) [CRS1050 R001 J 60PPM B](#) [CRS1050 R002 F 100PPM B](#) [CRS1050 R002 J 100PPM B](#)  
[CRS1050 R003 F 100PPM B](#) [CRS1050 R003 J 100PPM B](#) [CRS1050 R004 F 100PPM B](#) [CRS1050 R004 J 100PPM B](#)  
[CRS1575 R0002 F 50PPM B](#) [CRS1575 R0002 J 50PPM B](#) [CRS1575 R0005 F 100PPM B](#) [CRS1575 R0005 J](#)  
[100PPM B](#) [CRS1575 R001 F 120PPM B](#) [CRS1575 R001 J 120PPM B](#) [CRS1575 R002 F 120PPM B](#) [CRS1575 R002 J](#)  
[120PPM B](#) [CRS1575 R003 F 120PPM B](#) [CRS1575 R003 J 120PPM B](#)